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## IN THE CLAIMS:

1. (Amended) ~~A multi-ch optical transceiver module, comprising:~~

5 ~~a) a plurality of optical subassemblies (OSA) for transforming the received multi-ch optical signals to multi-ch electrical signals, and transforming the multi-ch electrical signals to multi-ch optical signals separately for transmission;~~

~~b) a plurality of special signal processing IC units for disposing the multi-ch electrical signals received from the plurality of OSA units and for inputting multi-ch electrical signals to the plurality of OSA units for transmission;~~

10 ~~c) an electrical connector unit for outputting multi-ch electrical signals disposed by the special signal processing IC units and for providing received multi-ch electrical signals to the special signal processing IC units for disposal;~~

A multi-channel optical transceiver module, comprising:

15 a) a plurality of optical connector mountings;

b) a plurality of optical subassemblies (OSA) each configured to be fixedly mounted in one of the optical connector mountings, wherein each of the OSA is configured to transform a first optical signal to a first electrical signal and to transform a second processed electrical signal to a second optical signal;

20 c) a signal processing IC unit electrically coupled to the plurality of OSA, configured to process the first electrical signal to produce a first processed electrical signal and to process a second electrical signal to produce the second processed electrical signal; and

25 d) an electrical connector unit electrically coupled to the signal processing IC unit, configured to output the first processed electrical signal and to transmit the second electrical signal to the signal processing IC unit.

30 2. (Amended) ~~The multi-ch channel optical transceiver module of claim 1, further comprising a MPU, for monitoring operation status of said plurality of OSA units and said special signal processing IC units so as to send out the monitoring information~~ a Micro Processing Unit configured to monitor the operation status of the plurality of OSA and to transmit the operation status information to the signal processing IC unit.

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3. (Amended) The multi-~~ch~~channel optical transceiver module of claim 2, further comprising an EEPROM, ~~for recording said monitoring information~~ configured to store the operation status information.

4. (Amended) The multi-~~ch~~channel optical transceiver module of claim 13, further comprising an ESD grounding unit, ~~for shielding the electromagnetism interference aroused when electrical connector unit transmits electrical signal~~ configured to shield electromagnetism interference from the electrical connector unit.

5. (Amended) The multi-~~ch~~channel optical transceiver module of claim 14, ~~further comprising a plurality of optical connector mounting sets, for separate fixation of OSA units wherein each of the plurality of optical subassemblies (OSA) can be individually removed from or mounted in one of the optical connector mountings.~~

6. (Amended) The multi-~~ch~~channel optical transceiver module of claim 5 ~~is put in a module case unit comprising a upper case and a base case, wherein a handle is jointed to the base case or the upper case of the module case unit~~ 1, further comprising a handle coupled to the plurality of optical connector mountings for easy plug-in or pullout of the multi-channel optical transceiver module.

7. (Amended) The multi-~~ch~~channel optical transceiver module ~~as stated claim 6, wherein at least one indicating light is set in the leading face of the multi-~~ch~~ optical transceiver module to indicate the operation state of the module according to said monitoring information of claim 1.~~ further comprising an indicator light configured to indicate the operation status of the multi-channel optical transceiver module.

8. (Amended) The multi-~~ch~~channel optical transceiver module of claim 6, ~~wherein said special signal processing IC units, MPU and EEPROM are set at 1, wherein the signal processing IC unit is disposed on a printed circuit board.~~

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9. (Amended) ~~The multi-channel optical transceiver module of claim 8, wherein said printed circuit board is placed on a fixed board in said module case unit, the upper case, or the base case of the module case unit~~1, wherein at least one of the plurality of optical connector mountings includes a snap-on mechanism to enable one of the OSA to be fixedly mounted in the optical connector mountings.

10. (Amended) ~~A The multi-channel optical transceiver module as stated in claim 8, wherein the multi-ch OSA are placed on the fixed board in the relate module case unit, the upper case, or the base case of the relate module case unit of claim 1, wherein at least one of the plurality of optical connector mountings includes a groove to receive one of the OSA.~~

11. (New) The multi-channel optical transceiver module of claim 1, wherein the plurality of OSA are configured to transform four channels of optical signals to electrical or to transform four channels of processed electrical signals to optical signals.

12. (New) A multi-channel optical transceiver module, comprising:

a) a plurality of optical connector mountings;

b) a plurality of optical subassemblies each configured to be individually and fixedly mounted in one of the optical connector mountings, wherein each of the optical subassemblies is configured to transform a first optical signal to a first electrical signal and to transform a second electrical signal to a second optical signal; and

c) an electrical connector unit electrically coupled to the plurality of optical subassemblies, configured to output the first electrical signal and to transmit the second electrical signal to the plurality of optical subassemblies.

13. (New) The multi-channel optical transceiver module of claim 12, wherein at least one of the plurality of optical connector mountings includes a snap-on mechanism to enable one of the optical subassemblies to be fixedly mounted in the optical connector mountings.

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14. (New) The multi-channel optical transceiver module of claim 12, wherein at least one of the plurality of optical connector mountings includes a groove to receive one of the optical subassemblies.

5 15. (New) The multi-channel optical transceiver module of claim 12, wherein at least one of the plurality of optical subassemblies can be individually removed from or mounted in one of the optical connector mountings.

10 16. (New) The multi-channel optical transceiver module of claim 12, further comprising a handle coupled to the plurality of optical connector mountings for easy plug-in or pullout of the multi-channel optical transceiver module.

15 17. (New) The multi-channel optical transceiver module of claim 12, wherein the plurality of optical subassemblies are configured to transform four channels of optical signals to electrical signals or to transform four channels of electrical signals to optical signals.

18. (New) A multi-channel optical transceiver module, comprising:  
a) a plurality of optical connector mountings each comprising a snap-on mechanism to receive an optical subassembly;

20 b) a plurality of optical subassemblies each configured to be fixedly mounted in one of the optical connector mountings by the snap-on mechanism, wherein each of the optical subassemblies is configured to transform a first optical signal to a first electrical signal and to transform a second electrical signal to a second optical signal; and

25 c) an electrical connector unit electrically coupled to the plurality of optical subassemblies, configured to output the first electrical signal and to transmit the second electrical signal to the plurality of optical subassemblies.

30 19. (New) The multi-channel optical transceiver module of claim 18, wherein at least one of the plurality of optical subassemblies can be individually removed or mounted in one of the optical connector mountings.

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20. (New) The multi-channel optical transceiver module of claim 18, wherein the plurality of optical subassemblies (OSA) are configured to transform four channels of optical signals to electrical signals or transform four channels of electrical signals to optical signals.

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